

**REMARKS**

Claims 1-42 are pending. Claims 1, 30, 37, 38, and 40 have been amended. No new matter has been introduced. Reexamination and reconsideration of this application are respectfully requested.

In the January 8, 2007 Office Action, the Examiner rejected claims 1-42 under 35 U.S.C. §103(a) as being obvious given U.S. Patent No. 5,994,858 to Miura ("Miura") in view of U.S. Patent No. 6,799,140 to Bernard et al. ("Bernard"). This rejection is respectfully traversed.

The Examiner alleged that Miura discloses a method and apparatus for detecting an obstruction to a powered window movement, including initiating a learning mode/user switch, operating a motor, measuring at least one parameter that corresponds to the operation of the motor to provide a parameter value, and using the parameter value to establish a specific force control value to establish obstacle detection or reversing operation or stoppage or other types of operation. The Examiner stated that "Miura does not disclose a user manipulability setting range for the force control." The Examiner alleged, however, that Bernard discloses a user manipulability/program module setting range for force control by using a measured parameter. The Examiner further argued that:

"It would have been obvious to one of ordinary skill in the art at the time of the invention to combine [the] Miura invention of detecting obstruction to powered window movement with Bernard's detector for monitoring rotation. The advantage of combining the two would provide a system for accurately detecting obstructions in a movable barrier in operation through the use of a parameter and force control."

[January 8, 2007 Office Action, P. 3.]

Independent claim 1 recites (with emphasis added):

1. A method for use with a barrier controller having **a physical user interface manipulable by a user through a corresponding physical setting range having a first physical position corresponding to a first end, a second physical position corresponding to a second end, and at least one specific intermediate physical position between the first physical position and the second physical position**, comprising:
  - initiating a learning mode;
  - operating a motor;
  - measuring at least one parameter that corresponds to operation of the motor to provide a parameter value;
  - using the parameter value to establish a specific force control value;

**assigning, during the learning mode, the specific force control value to a specific location of the physical setting range for the force control.**

Miura discloses a method and apparatus for detecting an obstruction to the movement of a powered window. Miura in particular discloses a switching unit (1) having a series of switches for controlling movement of the window. [Col. 6, lines 36-40.] The window is opened or closed by a rotating motor (4) as shown in FIG. 1. [Col. 7, lines 57-60.] The power window device shown in FIG. 1 utilizes motor load torque values as a parameter by which to detect obstructions to the motor-powered window movement. [Col. 8, lines 4-6.] In addition, the entire moveable range of the window (between the fully opened and fully closed positions) is divided into a plurality of moving areas on the basis of edge interval data arrival counts. A reference median and a reference allowable value of motor load torque are set for each of the divided moving areas of the window. [Col. 8, lines 8-14.] FIG. 3 shows typical reference medians and reference allowable values of motor load torque established for each of the divided moving areas. [Col. 8, lines 15-17.] These reference medians denote the torques needed to move the window with no substantial obstruction occurring to the window movement. [Col. 8, lines 35-38.] Miura further teaches that every time the window is moved, the existing reference medians are replaced by newly established reference medians – *i.e.*, “the reference medians are continuously learned.” [Col. 8, lines 42-45.]

Accordingly, Miura is directed to a system for continuously learning various parameters when a window is being closed. The system of Miura automatically determines these parameters without any interaction from the user. However, such parameters are *not assigned to a manipulable physical user interface*, as Miura discloses no such physical user interface, as is required by claim 1.

Bernard does not make up for the deficiencies of Miura. Bernard discloses a detector 19 for monitoring rotation. FIG. 1 illustrates the detector 19 that monitors the passage frequency of a moving target such as a conveyor belt. The detector 19 includes a conversational means 30 connected to a microcontroller 20. [Col. 2, lines 53-54.] The conversational means 30 includes a light emitting diode 31 driven by microcontroller 20 and a push-button 32. [Col. 2, lines 55-57.] When in a learning mode, the operator can select an

operating range M. [Col. 3, lines 20-21.] In the preferred embodiment, the operating range is expressed as a percentage of the normal passage frequency N and the operator may select the operating range by scrolling through a set of four predefined ranges through use of the push-button 32. [Col. 3, lines 26-35.]

Accordingly, Bernard discloses a detector for monitoring rotation of a conveyor belt, where the passage frequency is determined in a learning mode and then the operating range of the rotation can be manually set by the user based on pre-defined percentages of the passage frequency by depressing the push-button 32.

Although Bernard does disclose allowing a user to scroll through several possible operating ranges via use of a push button. The push button of Bernard has only two positions and is not manipulable through a *first physical position*, a *second physical position*, and *at least one specific intermediate physical position* between the first physical position and the second physical position. Thus, the combination of Miura and Bernard does not suggest a *physical user interface manipulable by a user through a corresponding physical setting range having a first physical position corresponding to a first end, a second physical position corresponding to a second end, and at least one specific intermediate physical position between the first physical position and the second physical position, as is required by claim 1.*

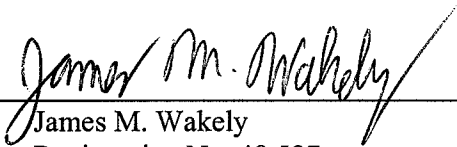
Moreover, neither Miura nor Bernard, alone or in combination, disclose, teach, or suggest *assigning, during a learning mode, the specific force control value to a specific location of the physical setting range for the force control.* Miura teaches adjusting reference torque values needed to move the window with no substantial obstruction occurring to the window movement over time. Bernard discloses that the user sets the operating range of the rotation for an obstacle detection system monitoring rotation of a conveyor belt. Assigning the specific force control values to a user manipulable interface during the learning mode, as specified by claim 1, provides a way for the barrier controller to determine different force control values for different positions within a possible range of the physical user interface. This is fundamentally different from the teachings of Bernard, for example, which merely discloses that the user can monitor a rotation of an object within a tolerance range selected by the user of a certain rotational frequency.

Accordingly, claim 1 and claims 2-29 depending therefrom directly or indirectly (through claim dependencies) distinguish over a combination of Miura and Bernard. Claims 30, 37, 38, and 40 contain distinguishing limitations similar to those of claim 1 discussed above. Therefore, claims 30, 37, 38, and 40 also distinguish over a combination of Miura and Bernard for at least the reasons discussed above with respect to claim 1. Claims 31-36, 39, and 41-42 depend from claims 30, 38, and 40, respectively, and therefore also distinguish over a combination of Miura and Bernard for at least the reasons discussed above with respect to claims 30, 38, and 40, respectively.

Therefore, for the reasons discussed above, it is respectfully submitted that the rejection of claims 1-42 under 35 U.S.C. §103(a) should be withdrawn.

Applicant believes that the foregoing amendments place the application in condition for allowance, and a favorable action is respectfully requested. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Chicago telephone number (312) 577-7000 to discuss the steps necessary for placing the application in condition for allowance should the Examiner believe that such a telephone conference would advance prosecution of the application.

Respectfully submitted,

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